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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/905,402	07/16/2001	Hiroki Ito	7217/64955	3752

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COOPER & DUNHAM LLP  
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New York, NY 10036

EXAMINER

NGUYEN, QUYNH H

ART UNIT PAPER NUMBER

2642

DATE MAILED: 11/26/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

09/905,402

Applicant(s)

ITO, HIROKI

Examiner

Quynh H Nguyen

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 16 July 2001.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-14 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-3, 5-10, and 12-14 is/are rejected.
- 7) ☒ Claim(s) 4 and 11 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_

## DETAILED ACTION

### ***Claim Rejections - 35 USC § 103***

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1-3, 5-10, and 12-14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Wilson (WO 94/21054) in view of Schiffer Pub. No. US 2001/0053677.

Regarding claims 1 and 8, Wilson teaches an antenna device having an antenna (Fig. 2, 3), a conductive layer (page 7, lines 16-26) that allows radiation from the antenna to pass. A case and shield may reduce the radiation from a mobile telephone occupied by the head of a person using the telephone by more than 97% (page 7, line 28 through page 9, line 26). Wilson further teaches components of the antenna device in his system. However, Wilson does not suggest in detail an antenna feeding portion and a high frequency current suppressing means formed of a conductive plate of a predetermined shape having one end along one direction connected to the ground conductor to form a short circuit and having an other end electrically opened from the ground conductor, wherein the high frequency current suppressing means has slits extending perpendicular to the one direction.

Schiffer teaches a method and apparatus comprising an antenna, a ground plane coupled to shielding that includes an opening for the antenna (page 1, [0009]), high frequency current suppressing means formed of a conductive plate of a predetermined shape having one end along one direction connected to the ground conductor to form a short circuit and having an other end electrically opened from the ground conductor, wherein the high frequency current suppressing means has slits (opening 150) extending perpendicular to the one direction (Fig. 3 and page 2, [0033]).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate the antenna device that has slits or opening extending around the entire perimeter of the ground plane, as taught by Schiffer, in Wilson's system in order to increase the effectiveness of the absorption rate of the shield device.

Regarding claims 2, 3, 6, 9, 10, and 13, Schiffer teaches the slit / opening part is formed by cutting from the shielding (page 2, [0030]).

Regarding claims 7 and 14, Wilson teaches the high frequency current suppressing means is arranged to face a portion of the ground conductor, wherein electromagnetic waves generated when the current flows to the ground conductor and to be absorbed by a human body are maximum (page 8, lines 20-29).

Regarding claims 5 and 12, Wilson does not teach the first conductive plate corresponding to one radio communication frequency and a second conductive plate corresponding to another radio communication frequency. It

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would have been obvious to modify Wilson's system to include a second conductive plate, since forming the slits on the second plate between the short circuit forming end and the electrically opened of the second plate portion would reduce the wavelength of the second radio communication frequency.

***Allowable Subject Matter***

3. Claims 4 and 11 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

***Conclusion***

4. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Toyoda et al. (Pub No. US 2001/0053673) teach communication apparatus and portable telephone. Wong (U.S. Patent 6,615,026) teaches portable telephone with directional transmission antenna.

5. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Quynh H. Nguyen whose telephone number is 703-305-5451. The examiner can normally be reached on Monday - Thursday from 6:30 A.M. to 5:00 P.M.


If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ahmad Matar, can be reached on (703) 305-4731. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-305-4700.

qhn

Quynh H. Nguyen  
September 29, 2004

  
AHMAD F. MATAR  
SUPERVISORY PATENT EXAMINER  
TECHNOLOGY CENTER 2700